

Lake Michigan Coastal Coordination Program

1998 Annual Report



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Michigan City, Indiana

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Introduction

1998 was a year of many transitions and successes for the Lake Michigan Coastal Coordination Program. The beginning of 1998 was marked by the completion of the Lake Michigan Indiana Access Guide and the continued effort to respond to the suggestions of the 1995 public workgroup process.

In July of 1998, Dawn Deady resigned as Program Manager of the Coastal Coordination Program. However, Ms. Deady's dedication to the Coastal Coordination Program continued even after her resignation through her efforts to ease the transition period for a new Program Manager. Laurie Rounds began as the new Program Manager in August. For Ms. Rounds, the last quarter of 1998 not only served as a period of introduction to the people and issues of Northwest Indiana, but also as a time to complete many projects.

The Natural Resources Commission 1995 resolution on Lake Michigan's coastal region continues to guide the efforts of the Coastal Coordination Program. For example, the Coastal Coordination Program's efforts to highlight the need for permit simplification contributed to the formation of the Waterway Permit Streamlining Workgroup. This workgroup will explore opportunities to coordinate permitting functions of the Department of Natural Resources and the Department of Environmental Management. In addition, the Coastal Coordination Program updated the Coastal Situation Report, participated in local, regional, and national meetings, developed educational materials and tools for the public, and continued to address the needs of Indiana's coastal region. This report will highlight the activities taken for each resolution passed by the Commission.



***RESOLUTION OF THE NATURAL RESOURCES COMMISSION IN SUPPORT OF
EFFORTS TO IMPROVE COMMUNICATIONS AND COORDINATION IN THE
USE AND ENJOYMENT OF INDIANA'S LAKE MICHIGAN COASTAL REGION***

WHEREAS, Northwest Indiana includes a diversity of plant and animal species unmatched in the state, including the Karner blue butterfly, sea rocket, Pitcher's thistle, Kalm's St. John's wort, beach pea, dune goldenrod, and Peregrine falcon;

WHEREAS, Northwest Indiana displays ecosystems of special significance, portions of which are preserved within the Indiana Dunes National Lakeshore and the Indiana Dunes State Park, and portions of which are outside these preserves;

WHEREAS, Northwest Indiana contains the Port of Indiana, the busiest port on Lake Michigan and a critical element of Indiana commerce;

WHEREAS, Northwest Indiana maintains a steel industry with state-of-the-art technology that produces 25% of the nation's steel;

WHEREAS, Northwest Indiana possesses a major oil refinery and other critical energy generating industries;

WHEREAS, Northwest Indiana is located adjacent to Chicago, a great metropolitan center, establishing both opportunities for tourism and challenges for providing adequate infrastructure and community services;

WHEREAS, Northwest Indiana includes Lake Michigan, an unparalleled water resource within the state, for boating, sport fishing, and commercial fishing;

WHEREAS, Northwest Indiana share Lake Michigan, its major source of drinking water, with industrial and other usages within and outside Indiana;

WHEREAS, Northwest Indiana concentrates these diverse and sometimes competing uses within 45 miles of shoreline;

WHEREAS, Northwest Indiana is challenged by environmental degradation, much of it dating from the beginning of the 20th Century, including one of 43 areas of concern designated in the United States and Canada by the International Joint Commission;

WHEREAS, Northwest Indiana is experiencing population growth which both enhances opportunities and exacerbates challenges; and

WHEREAS, Northwest Indiana is governed by a multiplicity of statutory and regulatory standards, some of which are exclusive to the region, and these are administered by a multiplicity of federal, state, and local agencies;

NOW BE IT HEREBY RESOLVED BY THE NATURAL RESOURCES COMMISSION THAT

The Department of Natural Resources shall expand and enhance meaningful opportunities for public participation by citizens of Northwest Indiana in decision making relative to natural, cultural, commercial, and recreational resources.

The Department of Natural Resources shall seek to simplify and clarify permitting processes and incentive programs in Northwest Indiana.

The Department of Natural Resources shall actively pursue improved communication and coordination within the agency and with other state, federal, and Northwest Indiana agencies and governmental units.

The Department of Natural Resources shall develop new educational tools, including the preparation of manuals and the possibility of placing staff locally who have computer skills, to assist the citizens of Northwest Indiana in exercising their rights and opportunities relative to agency functions.

The Department of Natural Resources shall work with citizens of Northwest Indiana to help identify and prioritize social and environmental needs, particularly as they relate to the responsibilities of the Department.

The Department of Natural Resources shall explore and investigate innovative methods and opportunities which may help address the requirements of Northwest Indiana.

The Department of Natural Resources shall seek methods to implement these directives without the enactment of additional statutory authority or the imposition of new regulations which usurp the legitimate prerogatives of local government and civil liberties of private citizens.

The Department of Natural Resources shall report to the Natural Resources Commission, at least once a year, on its progress toward achieving these directives.

Resolution on Public Participation

" . . . expand and enhance meaningful opportunities for public participation by citizens of Northwest Indiana in decision making relative to natural, cultural, commercial, and recreational resources."

Public Participation in Technology Development

On July 14, 1998, the Coastal Coordination Program demonstrated a prototype "Surface Transport Modeling and Analysis System" developed for the program by Purdue University. The computer model calculates the velocity and direction of surface water currents at the coast resulting from waves on Lake Michigan. Representatives from local police departments, health departments, the U.S. Coast Guard, Port Authority, Lake Michigan Marina Development Commission, Amoco Oil, Indiana Dunes State Park, and the Department of Environmental Management were invited to attend. The participants were asked to provide feedback as potential users

of the system regarding usefulness in common management situations.

Expansion of Michigan City Regional Office

Toward the end of 1998, the Department of Natural Resources was able to purchase the Goerg property adjacent to the existing Michigan City office. This expansion is an opportunity for the Department of Natural Resources to increase its ability to serve the coastal region, provide public access to Trail Creek, meet space requirements for additional Divisions of the Department, and provide space for public meetings. Development of a design plan for the building is expected to begin in 1999.



Goerg Property in Michigan City

Resolution on Permit Simplification

" . . . seek to simplify and clarify permitting processes and incentive programs in Northwest Indiana."

General Permit for the Placement of Beach Nourishment On Lake Michigan

In 1996, the Coastal Coordination Program, through the Natural Resources Commission, established emergency rule LSA #96-83 (E) which provided for the placement of "beach nourishment" material on Indiana's Lake Michigan shoreline, owned by either the Indiana Dunes State Park or the Indiana Dunes National Lakeshore. This effort was aimed at simplifying the permit process to encourage the placement of clean sand on Indiana's Lake Michigan beaches for both erosion prevention and recreational enhancement. The emergency rule was eventually codified as a permanent rule under 312 IAC 6-6, effective October 10, 1997. The permit does not eliminate the need for compliance with

regulatory authorities other than the Department of Natural Resources, so the Coastal Coordination Program assists permit applicants in working with other state, federal, and local agencies.

This general permit authorization has been used by the U.S. Army Corps of Engineers in 1996, 1997, and 1998 to place - 168,000 tons, 180,000 tons and approximately 200,000 tons of sand respectively along the Crescent Dune and Mt. Baldy shoreline immediately west of Michigan City. Similar authorization under this general permit is expected to be issued to the U.S. Army Corps of Engineers in 1999 for more beach nourishment placement.

Waterway Permit Streamlining Work Group

The Waterway Permit Streamlining Workgroup, which was formed based on the recommendation of the Blue Ribbon Advisory Panel, held several meetings during 1998: June 17th, July 15th, August 7th, and September 3rd. The membership of the group includes the following representatives:

- Department of Natural Resources
 - Mike Neyer, P.E., Director, Division of Water
 - Mike Massone, Division of Soil Conservation
 - Bill Maudlin, Division of Fish and Wildlife
- Department of Environmental Management
 - Mary Ellen Gray, Chief, Water Planning Branch
 - Kathy Luther, Lake Michigan Lakewide Area Management Plan Coordinator
 - Andrew Pelloso, Office of Water Management
- Advisors
 - Adriane Esparza, East Chicago Waterway Management District
 - Denarie Kane, City of Hobart
 - Tom Anderson, Save the Dunes Council
 - J.B. Smith, Beckman, Kelly & Smith

Under a Memorandum of Understanding the Waterway Permit Streamlining
Workgroup agreed to accomplish the following:

- ◆ Coordinate and cooperate;
- ◆ Establish guidelines for early coordination of the permit process for projects in the Lake Michigan basin and elsewhere if deemed appropriate;
- ◆ Determine participants in early coordination, such as IDEM, Department of Natural Resources, Army Corps of Engineers, Environmental Protection Agency, and US Fish and Wildlife Service;
- ◆ Establish a process for the applicant to request early coordination and negotiation of disagreements;
- ◆ Establish a measure of success for the joint permitting process and determine whether a joint permit application is feasible;
- ◆ Determine whether other methodologies should be pursued;
- ◆ Pursue development of a permit handbook of all guidelines of the IDEM, Department of Natural Resources, and Army Corps of Engineers; and
- ◆ Publish an IDEM and Department of Natural Resources joint permit handbook or brochure for local communities.

The Waterway Permit Streamlining Work Group accomplished the
following during 1998:

1. Identification of permits and rules that would be considered for coordination
 - ◆ Section 10, Rivers and Harbors
 - ◆ Section 404, Wetlands Dredge and Fill
 - ◆ Section 401, Water Quality Certification
 - ◆ Flood Control/Construction in the Floodway
 - ◆ Navigable Waters
 - ◆ Ditch Reconstruction
 - ◆ Public Freshwater Lakes
 - ◆ Mineral Extraction
 - ◆ Sand and Gravel Permit
 - ◆ Channels Act
2. Identification of areas for improved coordination
 - ◆ Rule or procedural misalignments
 - ◆ Early coordination
 - ◆ Joint permitting
 - ◆ Other state mechanisms
 - ◆ Permit ombudsman/troubleshooter
 - ◆ Public process coordination
 - ◆ Conflict resolution
 - ◆ Enforcement
 - ◆ Handbook
3. Agreed to hire a facilitator in order to continue the meetings, increase effectiveness, and prepare materials.

Resolution on Interagency Coordination

" . . . actively pursue improved communication and coordination within the agency and with other state, federal, and Northwest Indiana agencies and governmental units."

Coastal Club

The Lake Michigan Coastal Club is an organization of Department of Natural Resources Divisions and a Department of Environmental Management representative that meets monthly on the fourth Friday. These meetings focus on exchanging information about each Division's activities in the coastal area. In addition to Department of Natural Resources Divisions, the Department of Environmental Management's Northwest Indiana Office regularly participates. The Lake Michigan Lakewide Area Management Plan Coordinator provides information on their activities in the coastal area.

On June 8, 1998, the Coastal Club met in Michigan City for their annual meeting. John Bacone, Director of the Division of Nature Preserves, presented a slide show detailing results of a report entitled, "The Status of Natural Areas in Indiana's Coastal Zone- A Comparison: 1979-1996". The group also toured the shoreline at Ogden Dunes and saw evidence of the March 9th storm damage that occurred on Lake Michigan's shoreline at Beverly Shores and the Port of Indiana.

Interagency Task Force On *E. coli*

The Interagency Task Force on *E. coli* continued to pursue scientific understanding of *E. coli* and its impacts on surface waters in the coastal area. During 1998, the Point Source committee of the Task Force conducted monitoring of *E. coli* levels in surface water. Monitoring was the joint effort of the County and Municipal Health Departments and Sanitary Districts,

industries, Department of Environmental Management, and the National Park Service. These groups have formed a volunteer monitoring network and have collected hundreds of samples throughout the spring and summer. The information they produce will help the Task Force target future efforts. We also anticipate that the data and the innovative methods used to evaluate, track, and remediate elevated *E. coli* levels will be applicable in other areas of the state experiencing similar difficulties.

In addition, the Task Force discussed project proposals for the upcoming year. The Indiana Geological Survey proposed with the support of the Task Force, "A Program for Modeling and Monitoring Source Areas of *E. coli* Contamination in Watersheds That Drain into Southern Lake Michigan: pilot application to the Little Calumet drainage." The ultimate goal of the investigation is to develop a model program for tracking, understanding, and managing the source areas and causes of bacterial contamination in complex watersheds that are subject to multiple land uses.

" . . . groups have formed a volunteer monitoring network and have collected hundreds of samples throughout the spring and summer"

The U.S. Geological Survey also proposed with the support of the Task Force, "The Development of a Beach Advisory Index for Public Beaches". The proposal contains a biological and a beach management vantage point. The project is directed toward getting information to the beach managers concerning public health risks.

Natural Resources Commission Tour of Lake County

On September 17, 1998, the Natural Resources Commission toured northern Lake County during their monthly meeting. The Coastal Coordination Program presented the history of the Hammond Marina's breakwater and public fishing area while Commission members walked the structure. On the following day, the Commission was given a tour of area nature preserves and restoration sites including Clark and Pine, Clark and Pine East, and Gary Lagoons. The Coastal Coordination Program coordinated with the Division of Nature Preserves and the Division of Fish and Wildlife to produce an information packet with detailed information about each site on the tour.



NRC Tour of Clark & Pine Nature Preserve

Lake Michigan Lake-wide Area Management Plan

The Coastal Coordination Program was selected to coordinate the Department of Natural Resource's participation and comments on the Lake Michigan Lakewide Area Management Plan (LaMP). The U.S. Environmental Protection Agency and state environmental management agencies are charged with developing the Lake Michigan LaMP. The Department of Environmental Management is the lead agency for Indiana. When completed the LaMP will outline a plan to address critical pollutants and restore beneficial uses of Lake Michigan waters.

U.S. Environmental Protection Agency, Great Lakes National Program Office

The U.S. EPA Great Lakes National Program Office (GLNPO) in Chicago meets annually to determine priorities for their program. State, Federal, Tribal and non-governmental organizations from the Great Lakes region attended in October. The Coastal Coordination Program attended the annual meeting for the Department of Natural Resources.



NRC Tour of the Grand Calumet River

Resolution on Public Education

"... develop new educational tools, including the preparation of manuals. . ."

Shorelines

The Coastal Coordination Program produced quarterly issues of the newsletter *Shorelines* in 1998. *Shorelines* includes articles on diverse topics related to Lake Michigan issues. A three part series on ancient shipwrecks off the shoreline of Indiana was initiated in 1998. These articles generated a great deal of attention throughout the coastal region. The newsletter is mailed to approximately 500 people, with additional copies distributed through Department of Natural Resource's Lake Michigan field office and at local conferences. The newsletter is also accessible on the Internet at the Department of Natural Resources Lake Michigan webpage.



Department of Natural Resources Lake Michigan Internet Website

The Department of Natural Resources Lake Michigan webpage provides access to information on the Coastal Coordination Program as well as topics of interest to the local community. The webpage can be accessed at <http://www.state.in.us/dnr/lakemich/index.htm> Reports on the 1995 public work group process to determine priorities for the coastal area and the 1997 Blue Ribbon Advisory Panel recommendations are accessible. In addition, the Coastal Coordination Program maintains and updates information on boating laws, pumpout stations, shoreline processes, the Interagency Task Force on *E. coli*, and aquatic nuisance species. Approximately 1,700 people visited the Department of Natural Resources Lake Michigan webpage in 1998.

Coastal Hazards Presentation

The Coastal Coordination Program held a meeting with the Natural Resources Conservation Service on June 4, 1998. The presentation provided information on shoreline dynamics and coastal hazards, a description of Indiana's shoreline, and a summary of the Coastal Coordination Program. The Natural Resources Conservation Service participants toured the shoreline following the meeting.

State of Indiana - Coastal Situation Report – 1998

The Division of Water received the original "State of Indiana - Coastal Situation Report" from Purdue University in 1988. This report provided a comprehensive compilation of important information about Indiana's Lake Michigan coastline. Topics in the report include information on areas of high erosion rates, the location of major coastal structures, and a thorough evaluation of coastal waves and current conditions, with an emphasis on understanding coastal processes. The 1988 report was only available in hard copy. In 1996 the Coastal Coordination Program contracted with Purdue to provide a 10-year update to the 1988 report. In 1998, significant progress was made in completing this newest version of the Coastal Situation Report including the creation of a version that will be available for review, printing, and downloading off the Internet. This will significantly increase the availability of this information to the public, overcoming the problem of the limited distribution of the 1988 version due to the limited number of hard copies printed.

Boating Safety and Education

In 1997, the Coastal Coordination Program created the document, *"Boating Laws on Indiana Waters of Lake Michigan"*. Creation of this document was a result of a resolution adopted by the Lake Michigan Marina Development Commission asking the Department of Natural Resources to pursue initiatives to improve boater safety and education. The Boating Laws document was placed on the Department of Natural Resources' Lake Michigan Internet website in late 1997. In May 1998, the Coastal Coordination Program presented the Boating Laws document to the Lake Michigan Marina Development Commission. Since that time, the Coastal Coordination Program has been incorporating the suggestions made

by the Commission and area marinas to improve the design of the webpage and to update the information provided. In addition, the Coastal Coordination Program is designing a poster for local marinas and other recreational areas to inform the public of the document's availability on the Internet. *"Boating Laws on Indiana Waters of Lake Michigan"* and a poster will be available in 1999.



"Discovering Great Lakes Dunes"

The Michigan Sea Grant contacted the Coastal Coordination Program and requested a narrative from Indiana for the follow up of a publication entitled, "Discovering Great Lakes Dunes". This publication, expected to be published in 1999, focuses on sand dune protection in the Great Lakes.

The Coastal Coordination Program developed a chapter that will detail the efforts in Indiana to protect dunes by state, local, and non-governmental organizations. This publication will be distributed widely throughout the Great Lakes.

Resolution on Determining Social and Environmental Needs
" . . . work with citizens of Northwest Indiana to help identify and prioritize social and environmental needs . . . "

Local Meetings

In 1998, the Coastal Coordination Program continued to participate in local initiatives to address social and environmental needs in the coastal area. The Coastal Coordination Program participates in the Bethlehem Steel Community Advisory Committee, the Grand Calumet River and Indiana Harbor Ship Canal Corridor Vision Project, the Northwest Indiana Regional Planning Council, and the Citizens for the Remediation of the Environment meetings.

Bethlehem Steel Community Advisory Committee

The Bethlehem Steel Community Advisory Committee meets bimonthly to discuss issues of importance to the community around the Burns Harbor division of Bethlehem Steel. The Coastal Coordination Program also participates on the Environmental Performance and Indicators subcommittee which is developing measures for tracking improvements in environmental performance achieved by the Burns Harbor division. In 1998, the committee identified air quality as a priority concern, priority pollutants of concern, and the need for simplified reporting of these topics to the community.

Corridor Vision Project

The Grand Calumet River and Indiana Harbor Ship Canal Corridor Vision Project is a local effort to create a greenway along the river and canal.

The mission of the project is:
To plan for the revitalization and restoration of the Grand Calumet River and Indiana Harbor Ship Canal Corridor in Northwest Indiana and to promote an effective balance of community and economic development, commercial and

industrial uses, recreational opportunities, historical and cultural preservation, nature conservation, water quality improvement, and environmental education, through a partnership visioning and funding process.

The Coastal Coordination Program participated in monthly meetings to plan public input and education concerning the project. In 1998, the project developed a video and brochure, initiated a Geographic Information System for the local project area, and planned a children's vision workshop for the following summer.

The Northwestern Indiana Regional Planning Commission: Environmental Management Policy Committee

The Northwestern Indiana Regional Planning Commission revived its Environmental Management Policy Committee (EMPC). The EMPC's purpose is to provide a forum for the public and local officials to meet, discuss and find solutions to environmental problems in northwest Indiana on a regional basis. Recent efforts have focused on improving "air quality", however other issues considered include: regional recycling of paper; the ADID Wetlands Project (advanced identification of wetlands); and working with the Quality of Life Council. The Coastal Coordination Program participates in the monthly meeting.

Grand Calumet River/Indiana Harbor Ship Canal Area of Concern

The International Joint Commission designated the Grand Calumet River and Indiana Harbor Ship Canal as an Area of Concern for Lake Michigan. The Department of Environmental Management is the lead agency to develop a Remedial Action Plan (RAP) for the Area of Concern in cooperation with the U.S. Environmental Protection Agency. The Coastal Coordination Program is actively participating in the RAP advisory committee, the Citizens Advisory for the Remediation of the Environment (CARE) committee, and the Habitat subcommittee of CARE. CARE meets monthly in Hammond to develop plans for the RAP and discuss environmental priorities for the community. The committee consists of members of the

public, industry, environmental organizations, and other agencies. The RAP will result in a plan to restore the beneficial uses of the river and ship canal.



Northwest Indiana Public Workgroup Suggestions

The Coastal Coordination Program continued to refine the “*Synthesis of Major Topics in the Lake Michigan Coastal Area*” that synthesizes the suggestions made by the Northwest Indiana Public Work Groups. The document identifies some of the issues of concern associated with topics raised frequently by the work groups and reviews existing regulations and programs that address that concern. The chapters conclude with a discussion that provides some perspective on steps that can be taken to move forward in addressing some of the issues. The Coastal Coordination Program coordinated with other state agencies during

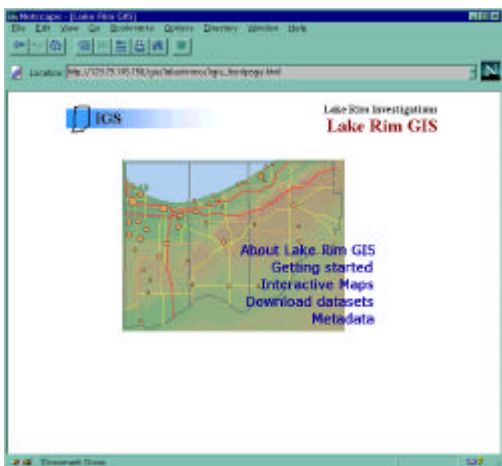
development of this synthesis. The final months of 1998 were spent working with Access Indiana to make the Synthesis available over the Internet. It is the hope of the Coastal Coordination Program that the information compiled in this document will provide an important link to prioritizing solutions and identifying who is best equipped to implement those solutions. The information helps to define the tools we have, what has been done, and what could be done now and in the future. The “*Synthesis of Major Topics in the Lake Michigan Coastal Area*” will be publicly available in 1999.

Resolution on Innovative Solutions

“ . . . explore and investigate innovative methods and opportunities which may help address the requirements of Northwest Indiana.”

Geographic Information System for the Coast

The Coastal Coordination Program coordinated participation in an Indiana Geological Survey (IGS) proposal for the creation of a comprehensive Geographic Information System (GIS) for the Lake Michigan basin. Participants in the project include IGS, Department of Natural Resources, Department of Environmental Management, and Indiana State Department of Health.



The GIS will make available in a compatible format important land-use and environmental data maintained by two different agencies. This format will facilitate the analysis of environmental concerns by state natural resource managers and interest groups. In May, the Coastal Coordination Program finalized a contract for the GIS including databases associated with *E. coli*

monitoring and the training of personnel in the use of this project. The GIS will be made available via the Internet allowing the public to access data and produce maps.

“Surface Transport Modeling and Analysis” System for the Coast

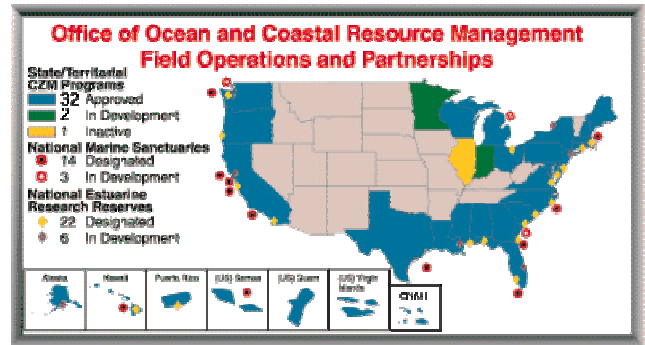
A prototype "Surface Transport Modeling and Analysis System" was developed for the Coastal Coordination Program by Purdue University to demonstrate how anyone with access to the Internet could link to a computer residing at Purdue and run the surface transport model. The innovative features of this model are its ability to: use the Internet to instantaneously access and download 'real time' wind and wave data from a NOAA buoy in the southern end of Lake Michigan; use this 'buoy data' to calculate the size and direction of waves as they approach Indiana's coast; then calculate the resulting speed and direction of water current movement along Indiana's shoreline, caused by these waves. In addition to plotting the general current direction and speed, the program can 'show the track' of a water parcel's movement over a specified period of time. If this prototype is fully developed in the future, it could be used by law enforcement and coastal scientists to analyze the movement of such things as stranded boats, lost swimmers, or the movement of *E. coli* bacteria contamination along the beaches of Lake Michigan which can lead to beach closures.

Coastal Zone Management Program Development Grant

The Coastal Coordination Program successfully completed the commitments of the second coastal program development grant from the National Oceanic and Atmospheric Administration. Under this grant, the Coastal Coordination Program researched and documented existing mechanisms used to manage cultural and natural resources in the coastal area. For example, work was completed on state and federal laws that pertain to energy facility siting in the coastal area. In addition, the grant funded the 1998 Coastal Situation Report, the Surface Transport Modeling and Analysis System, Lake Michigan Indiana Access Guide, Lake Michigan recreation survey, and the inventory of important wetlands and natural areas in the coastal area.

The Coastal Coordination Program continued to meet the commitments of the current coastal program development grant. The work performed under this grant will be completed in March 2000. The main products of this grant will be the Coastal Geographic Information System, identification of coastal areas of

significance, an evaluation of coastal hazard policies and procedures, and an evaluation of the potential benefits and implementation of federal consistency under the Coastal Zone Management Act.



Indiana is eligible for one additional coastal program development grant of \$200,000. The Coastal Coordination Program began work on this fourth grant application and planning for the completion of a Coastal Coordination Plan. Award of this final grant is expected in 1999 with work beginning in July 1999.

National and Regional Meetings

The Coastal Coordination Program attended several national and regional meetings on issues of relevance to Indiana's coastal region.

- "The Future of State Coastal Nonpoint Program: an interactive workshop to develop a joint state/federal vision for coastal nonpoint pollution control", National Oceanic & Atmospheric Administration, Office of Coastal Resource Management
- National Coastal Zone Management Program Manager's Meeting, National

Oceanic & Atmospheric Administration, Coastal Services Center

- Great Lakes Program Manager's Meeting, National Oceanic & Atmospheric Administration Office of Coastal Resource Management
- Great Lakes Workshop, Coastal Services Center
- Coastal States Organization Annual Meeting